

**EVALUATION OF A SCHOOL-BASED PEER-LED EDUCATION
PROGRAM FOR ADOLESCENTS WITH ASTHMA IN JORDAN**

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**A thesis submitted in accordance with the total requirements for admission to the
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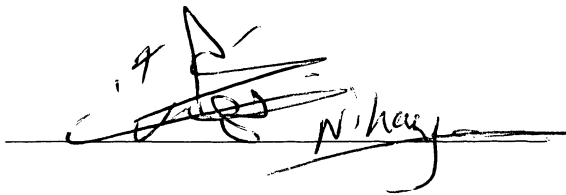
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Certificate Of Authorship/Originality

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Signature of Student

A handwritten signature in black ink, appearing to read "N. Hany", is written over a horizontal line. The signature is stylized with a large, sweeping initial 'N' and a long horizontal stroke extending to the right.

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Abstract

Background: Adolescent asthma, despite being prevalent and having the potential to negatively impact quality of life, can be adequately managed using the support of peer-led education initiatives within the school context. Such programs acknowledge the social importance of peers and schools in shaping adolescents' health-related behaviours, utilising the universal influence of peers in a positive way.

Aim: The aim of this study was to determine the effect of a peer-led asthma education program (Triple A – Adolescent Asthma Action) on asthma-related quality of life, knowledge of asthma management, and self-efficacy to resist smoking among students with asthma attending high schools in Jordan by three months post intervention.

Methods: A cluster-randomised controlled trial was conducted in 4 high schools in Irbid, Jordan, on students with asthma ($n = 261$) in years 8, 9, and 10. Students in the two intervention schools ($n = 132$) were involved in TAJ (Triple A in Jordan) over three weeks, whereas students in the two control schools ($n = 129$) were not involved in any intervention. The trial followed a pilot study that was used to determine whether Triple A was needed and feasible, with adaptations made to adjust for the Jordanian high school context. As the cluster design was used and three baseline covariates were found, a SAS.PROC.MIXED adjusted model was used to account for these issues.

Results: The average age of the students with asthma was 15.2 years ($SD = 1.23$), and the majority were male (56.7%), with almost one third of all the participating students (27.7%) reporting being smokers. Approximately 70% had a professional asthma diagnosis, and the remainder reported recent wheezing in the last 12 months, but had not been diagnosed with asthma by a health care professional. In fact, the proportion of students with asthma in the whole sample proved larger than expected, as asthma symptoms were prevalent (17.15%). The program was well-received by students and school staff and modifications were minimal. The TAJ program resulted in significant improvement in all outcomes measured in students with asthma. Compared to the control group, students with asthma in the intervention schools had statistically and clinically significant improvements in quality of life (mean difference = 1.35, 95%

CI = 1.04 – 1.76), better asthma-related knowledge (mean difference = 1.62, 95% CI = 1.15 – 2.19), and higher self-efficacy to resist smoking (mean difference = 4.63, 95% CI = 2.93 – 6.35) at three months follow-up. In particular, the TAJ group had most improvement in quality of life in the symptom sub-domain scores (change in score = 0.97, $p < 0.02$) in comparison to the activities and the emotions domains.

Conclusion: The school-based peer-led education program (TAJ) has been shown to be successful in promoting the health of adolescents with asthma in Jordan. Triple A proved adaptable and effective in another culture and context and may have potential for other health-related issues for adolescents. It is crucial that health promotion programs like TAJ are implemented for adolescents in Jordan.